

EXHIBIT 4



OCEAN TOMO

INTELLECTUAL CAPITAL EQUITY

ORACLE AMERICA, INC.

V.

GOOGLE INC.

CASE No. CV 10-03561 WHA

EXPERT REPORT OF JAMES E. MALACKOWSKI

[CORRECTED]

January 8, 2016



web browser on the iPhone allowed users to browse web sites that previously did not display properly on cellphones.¹⁸⁸

105. Initially, Apple kept tight control over the types of applications and services consumers could access on the iPhone. For example, Morgan Stanley observed that “Apple has itself created a walled garden on the iPhone in terms of branding and applications.”¹⁸⁹ In particular, Apple initially adopted a restrictive policy limiting independent software that could be used on the iPhone. This policy was greeted with heavy criticism from independent programmers, who complained that Apple was “stymieing innovation” by trying to exert excessive control over the device. On October 17, 2007, Apple reversed its policy by announcing that in February 2008 the company would release a software development kit to allow programmers to develop third-party applications for the iPhone.¹⁹⁰
106. In July 2008, Apple introduced the 3G iPhone that ran on AT&T’s WCDMA/HSDPA network. This allowed users to navigate the Internet at much faster speeds than the original iPhone launched in June 2007. At the same time, Apple opened the App Store as an online software clearinghouse that sold third-party Apps and content developed for the iPhone using a software development kit released by Apple.¹⁹¹
107. According to Apple, there were about 900 applications available on the App Store as of August 2008, and 20 percent of these could be downloaded free of charge.¹⁹² In the first month that the App Store was open, users downloaded more than 60 million programs for the iPhone. Apple’s then Chief Executive Steve Jobs predicted that the mobile phone of the future “will be differentiated by software.”¹⁹³
108. According to the FCC, there were over 100,000 applications available from the Apple App Store as of December 2009. The number of applications downloaded from Apple’s App Store grew to

¹⁸⁸ FCC 08-28, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, Twelfth Report, February 4, 2008, p. 81.

¹⁸⁹ FCC 08-28, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, Twelfth Report, February 4, 2008, p. 81.

¹⁹⁰ FCC 08-28, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, Twelfth Report, February 4, 2008, p. 81; <http://www.wsj.com/articles/SB119263585523362090>.

¹⁹¹ FCC 09-54, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, Thirteenth Report, January 16, 2009, p. 9.

¹⁹² Apple keeps 30 percent of the proceeds from sales of iPhone applications for which customers pay to download, while developers receive the remaining 70 percent (see, FCC 09-54, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, Thirteenth Report, January 16, 2009, p. 82).

¹⁹³ FCC 09-54, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, Thirteenth Report, January 16, 2009, p. 82.



over 2 billion in 2009.¹⁹⁴ By March 2012, 25 billion applications had been downloaded from the Apple App Store.¹⁹⁵

109. Data from M:Metrics for the month of January 2008 indicated that U.S. consumers who purchased the iPhone browsed the Internet and otherwise accessed mobile content at much higher rates than those who owned other makes of smartphones as well as U.S. mobile phone subscribers in general. **Figure 17** is a summary of U.S. mobile content consumption via iPhones, other smartphones, and for the total market for January 2008.

Figure 17

Percentage of Wireless Subscribers Accessing the Internet by Smartphone in 2008¹⁹⁶

Activity	iPhone	Smartphone	Market
Any news or info via browser	84.8%	58.2%	13.1%
Accessed web search	58.6%	37.0%	6.1%
Watched mobile TV and/or video	30.9%	14.2%	4.6%
Watched on-demand video or TV programming	20.9%	7.0%	1.4%
Accessed social networking site or blog	49.7%	19.4%	4.2%
Accessed Facebook	20.0%	NA	1.5%
Accessed YouTube	30.4%	NA	1.0%
Used Google Maps	36.0%	NA	2.6%
Listened to music on mobile device	74.1%	27.9%	6.7%

110. As reflected in **Figure 17** above, as of January 2008, nearly 85 percent of iPhone users accessed news and information via a browser, as compared to about 58.2 percent of other smartphone users and compared to the market average of 13.1 percent. As **Figure 17** illustrates, M:Metrics found that nearly 31 percent of iPhone users watched mobile TV or video, versus a market average of 4.6 percent and more than double the rate for all Smartphone users (14.2 percent). In addition, nearly 50 percent of iPhone users accessed a social networking site or blog, versus 19.4 percent of Smartphone users and a 4.2 percent market average.¹⁹⁷

8. GOOGLE'S MOBILE BUSINESS STRATEGY

¹⁹⁴ FCC 10-81, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, Fourteenth Report, May 20, 2010, p. 173.

¹⁹⁵ FCC 13-34, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, Sixteenth Report, March 21, 2013, p. 24.

¹⁹⁶ FCC 09-54, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, Thirteenth Report, January 16, 2009, p. 98.

¹⁹⁷ FCC 09-54, Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, Thirteenth Report, January 16, 2009, p. 98.



111. From at least the early 2000s, Google was concerned with the emergence and growth of the mobile wireless industry as a competitive threat for its search services, which had dominated the desktop market. Google worried about its ability to attract people who browse the Internet on mobile devices to its websites, and to protect the substantial annual advertising revenues it had achieved through Internet searches by people searching the Internet via personal computers.
112. One of Google's earliest mobile strategy documents was created in late 2004 when it evaluated opportunities to distribute its search services and applications on wireless devices.¹⁹⁸ That late 2004 wireless strategy report did not mention development of its own platform, and barely mentioned the prospect of creating its own handset.
113. According to another Google October 2004 "Wireless Strategy" report, "[t]he market is changing . . . Mobile Data Service is growing rapidly . . . Consumer Behavior has changed . . .
 - Cell Phone becomes integral part of people's life-style. . . .
 - There are more mobile users than Internet users in some regions
 - SMS, and Application Download becomes standard: In the first five months of 2004, Verizon Wireless downloaded 34 MM applications to its 40 million subscribers."¹⁹⁹
114. Google was so concerned that it might be locked-out of the search services industry by wireless carriers such as Verizon and AT&T, or by mobile platform owners such as Apple, that its public securities filings began reflecting this risk to its business. In its 2004 10-K (which was filed on March 30, 2005), Google noted:

*'More individuals are using non-PC devices to access the Internet, and versions of our web search technology developed for these devices may not be widely adopted by users of these devices. The number of people who access the Internet through devices other than personal computers, including mobile telephones, handheld calendaring and email assistants, and television set-top devices, has increased dramatically in the past few years. The lower resolution, functionality and memory associated with alternative devices make the use of our products and services through such devices difficult. If we are unable to attract and retain a substantial number of alternative device users to our web search services or if we are slow to develop products and technologies that are more compatible with non-PC communications devices, we will fail to capture a significant share of an increasingly important portion of the market for online services.'*²⁰⁰

¹⁹⁸ GOOG-00580439.

¹⁹⁹ GOOGLE-87-00005644 – 697 at 546.

²⁰⁰ Google Inc. SEC Form 10-K for the year ended December 31, 2004, pp. 57-58.



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I have not prepared any prejudgment interest calculations as of this date, but am prepared to do so if requested by the Court.

14. SIGNATURE

I declare under penalty of perjury that the forgoing is a true and correct summary of my opinions in this matter,

A handwritten signature in black ink, appearing to read "James E. Malackowski", written over a horizontal line.

James E. Malackowski

January 8, 2016